January 28, 1980

RAILWAY AGE

Pullman Standard

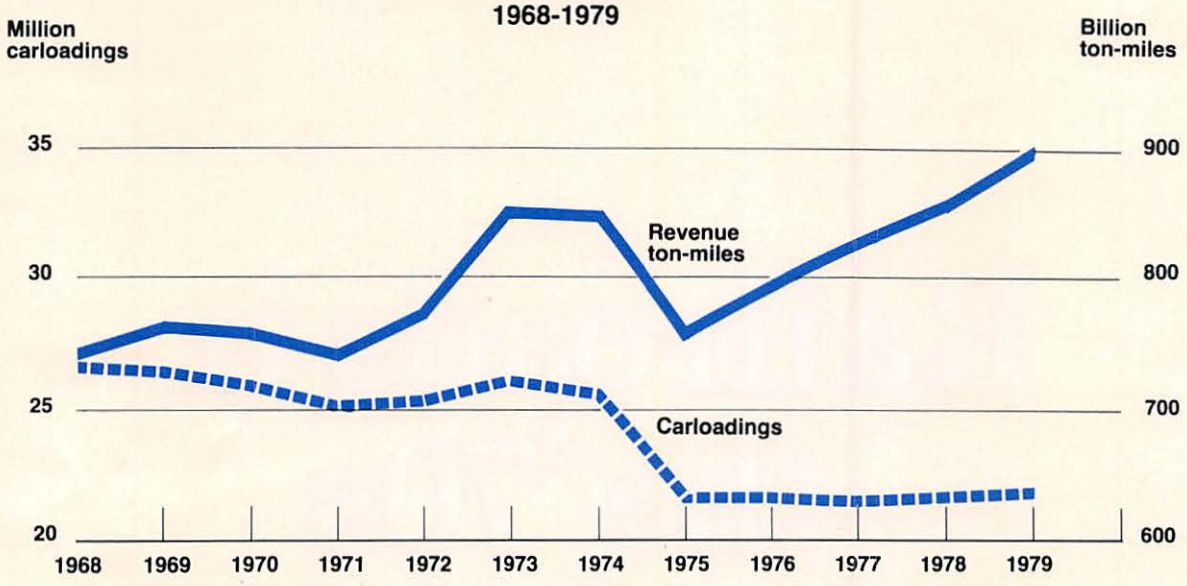
Railroads in the '70s

A statistical review

Traffic

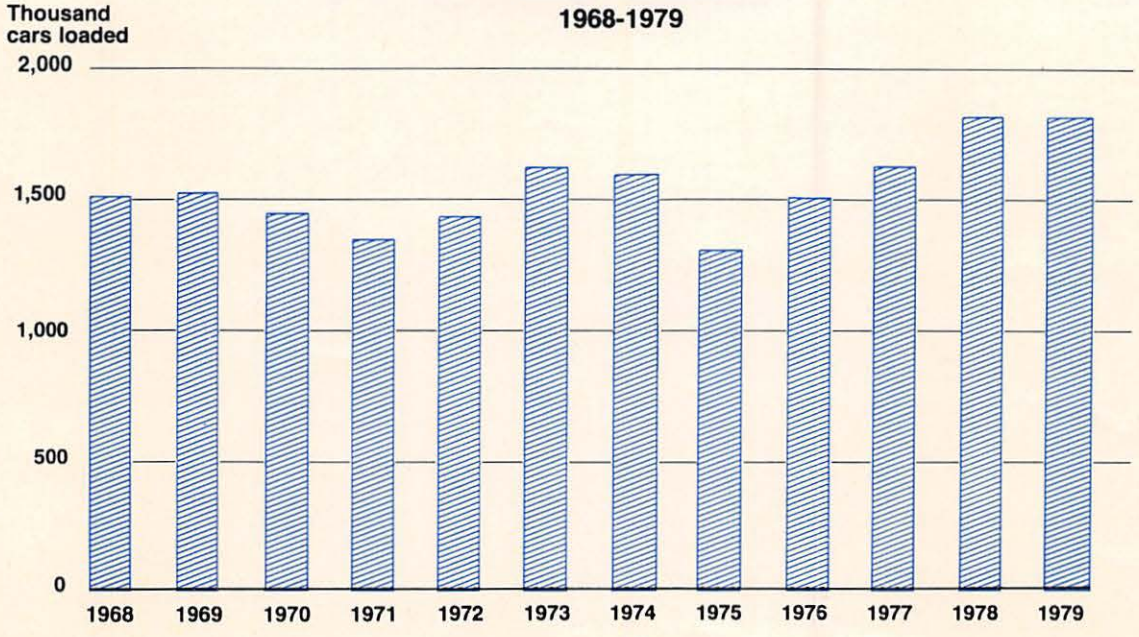
Freight traffic trends

Class I railroads
1968-1979



Revenue carloadings of T-O-F-C traffic

Class I railroads
1968-1979



Carloadings by commodities 1979 vs 1978

Commodity	1979	1978		Incr. or Decr. 1979 vs 1978 Cars	Percent
Grain	1,428,170	1,340,254	I	87,916	6.6%
Other farm products	222,713	243,543	D	20,830	8.6
Metallic ores	1,765,494	1,710,477	I	55,017	3.2
Coal	5,254,337	4,427,722	I	826,615	18.7
Crushed stone, gravel and sand	853,479	954,892	D	101,413	10.6
Nonmetallic minerals	783,067	763,137	I	19,930	2.6
Grain mill products	917,154	972,038	D	54,884	5.6
Food and kindred products	953,397	990,488	D	37,091	3.7
Primary forest products	1,054,916	1,086,117	D	31,201	2.9
Lumber and wood products except furniture	596,620	648,859	D	52,239	8.1
Pulp, paper and allied products	1,096,595	1,093,814	I	2,781	0.3
Chemicals and allied products	1,488,167	1,439,191	I	48,976	3.4
Petroleum products	335,578	358,307	D	22,729	6.3
Stone, clay and glass products	943,730	962,252	D	18,522	1.9
Coke	359,676	375,384	D	15,708	4.2
Metals and products	983,835	966,396	I	17,439	1.8
Motor vehicles and equipment	1,122,309	1,261,174	D	138,865	11.0
Waste and scrap materials	713,116	711,617	I	1,499	0.2
Forwarder and shipper association traffic	642,103	623,665	I	18,438	3.0
All other carloads	2,341,234	2,400,254	D	59,020	2.5
LCL traffic	20,834	25,896	D	5,062	19.5
Total cars loaded	**23,876,524**	**23,355,477**	**I**	**521,047**	**2.2**

Freight and passenger traffic 1968-1979

Year	Revenue carloadings (thousands)	Piggyback carloadings (thousands)	Revenue ton-miles (millions)	Revenue passenger-miles (millions)
1968	28,253	1,510	744,023	13,110
1969	28,237	1,540	767,841	12,159
1970	27,160	1,450	764,809	10,740
1971	25,266	1,356	739,743	8,833
1972	26,105	1,448	776,746	8,558
1973	27,338	1,631	851,809	9,295
1974	26,184	1,610	850,961	10,333
1975	23,218	1,308	754,252	9,934
1976	23,457	1,506	794,059	10,304
1977	23,173	1,689	826,292	10,293
1978	23,355	1,841	858,105	10,222
1979	23,877	1,858	*e*902,000	*e*11,600

e Estimated

Note: Piggyback carloadings shown above include mail and express. Revenue passenger-miles include National Railroad Passenger Corp. (Amtrak) beginning with year 1971 and Auto-Train Corp. for years 1972-77.

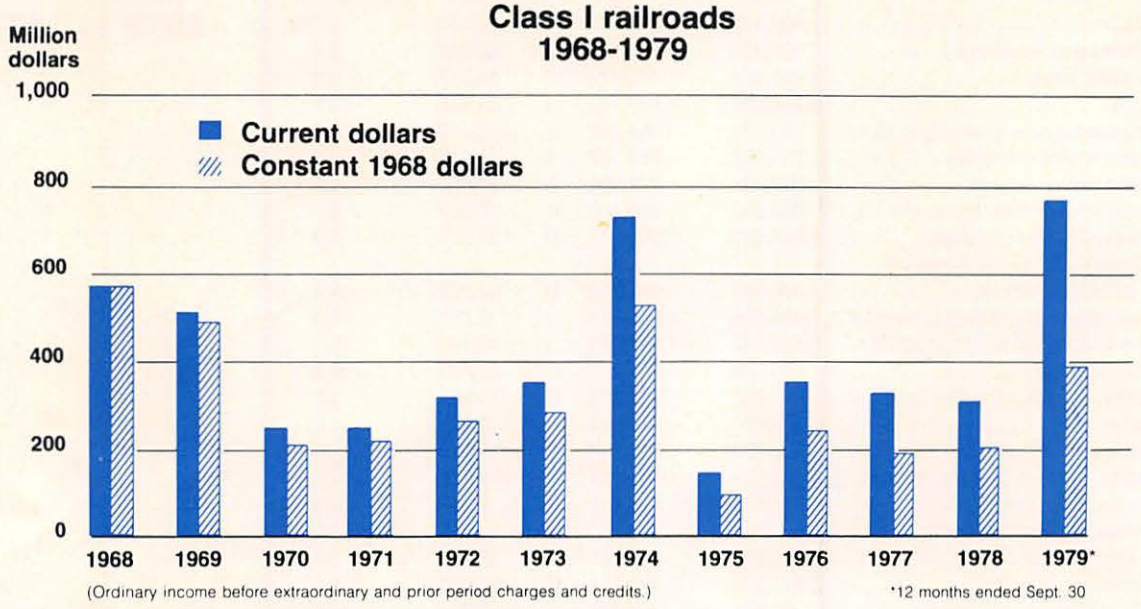
Methods of shipping motor vehicles from factories 1968-1979

Year	Vehicles shipped	Highway %	Railroad %	Boat %
1968	10,718,000	50.8	49.0	0.2
1969	10,147,000	48.2	51.7	0.1
1970	8,239,000	45.3	54.7	—
1971	10,638,000	47.5	52.5	—
1972	11,270,000	47.8	52.2	—
1973	12,637,000	48.0	52.0	—
1974	10,058,000	44.8	55.2	—
1975	8,985,000	46.4	53.6	—
1976	11,477,000	48.5	51.5	—
1977	12,639,000	49.3	50.7	—
1978	12,871,000	49.4	50.6	—
1979 (9 mos.)	8,921,000	50.5	49.5	—

Source: Motor Vehicle Manufacturers Association of the United States, except column 2 and 3 for 9 mos, 1979 estimated by AAR.

Earnings

Net income
Class I railroads 1968-1979



(Ordinary income before extraordinary and prior period charges and credits.)

*12 months ended Sept. 30

Condensed income account 1968, 1978, 1979

	1968 (millions)	1978 (millions)	12 mos. to 9/30/79 (millions)
Total operating revenues	$10,855	$21,721	$24,719
Total operating expenses[1]	10,170	21,043	23,584
Income taxes on ordinary income[2]	66	148	228
Provision for deferred taxes	—	93	145
Net railway operating income	678	427	785
Net ordinary income	569	307	775
Net income in constant 1968 dollars	569	202	395

Note: Data based on the new Uniform System of Accounts (U.S.O.A.), effective Jan. 1, 1978.
1. Operating expenses include rents and taxes other than income taxes.
2. Data for 1978 and 1979 include a small amount of state taxes.

Operating revenues 1968, 1978, 1979

	1968 (millions)	1978 (millions)	12 mos. to 9/30/79 (millions)
Freight	$ 9,989	$20,236	$22,937
Passenger	444	356	380
All other	421	1,129	1,402
Total	**$10,855**	**$21,721**	**$24,719**

Note: Mail and express included in freight revenue.

Rate of return on net investment and net income 1968-1979

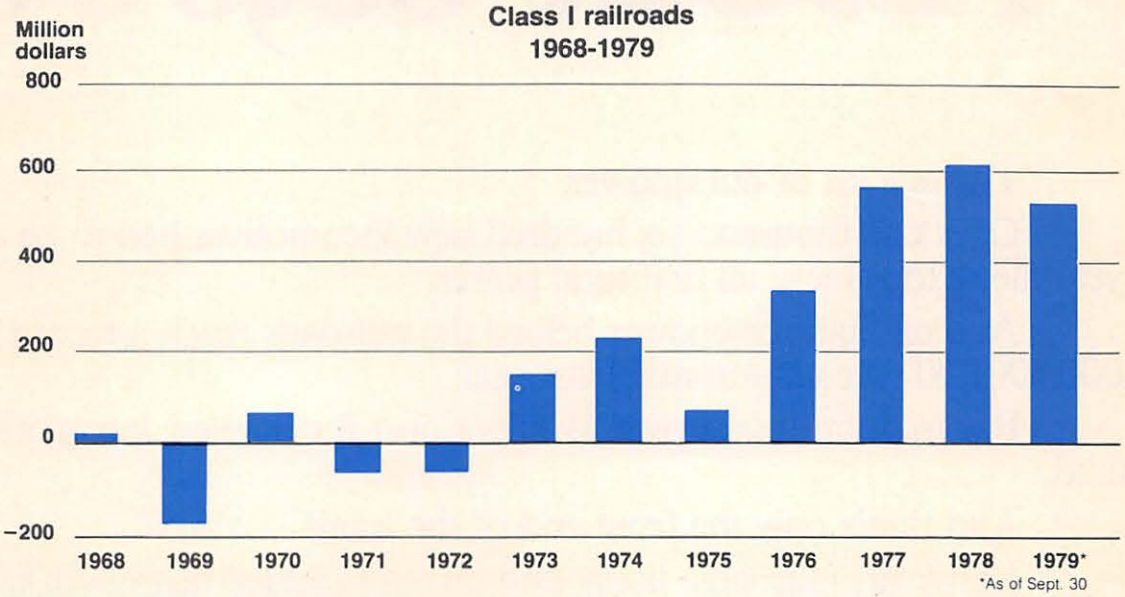
Year	Net railway operating income *a* (millions)	Rate of return on investment after depreciation *a* (millions)	Net income after fixed charges *b* (millions)	Net income in constant 1968 dollars (millions)
1968	$678	2.44%	$569	$569
1969	655	2.36	514	489
1970	486	1.73	227	205
1971	595	2.12	247	212
1972	654	2.34	319	263
1973	650	2.33	359	280
1974	768	2.70	730	520
1975	351	1.20	144	94
1976	452	1.60	355	219
1977	343	1.24	326	190
1978	427	1.52	307	202
12 mos. to 9/30/79	785	2.53	775	395

a After provision for deferred taxes beginning in 1971.
b After provisions for deferred taxes beginning in 1971 and including equity in undistributed earnings of affiliated companies beginning in 1974.

Note: Statistics shown above and elsewhere in the tables are for Class I line-haul railroads, excluding National Railroad Passenger Corp. (AMTRAK) and Auto-Train Corp., unless otherwise indicated.

Net working Capital

Class I railroads
1968-1979



*As of Sept. 30

Railway current ratio

Dec. 31	Current assets (millions)	Current liabilities (millions)	Current ratio
1968	$3,129.5	$3,116.0	1.0
1969	3,378.6	3,563.4	0.9
1970	3,582.5	3,523.9	1.0
1971	3,585.9	3,647.8	1.0
1972	3,611,6	3,672.3	1.0
1973	4,055.9	3,898.0	1.0
1974	4,553.2	4,333.7	1.1
1975	4,487.8	4,457.1	1.0
1976	5,181.2	4,907.5	1.1
1977	5,830.1	5,338.9	1.1
1978	6,791.3	6,226.2	1.1
9/30/79	7,318.7	6,789.6	1.1

Note: For the years 1967-74, data are based on the consist of Class I railroads for each respective year; beginning with 1975, statistics are based on the 1979 Class I consist excluding the Long Island Rail Road.

What do the rail
for Am

About 63,000,0

That's a lot of horsepower.

Over one thousand six hundred new locomotives had to be added last year alone to achieve all that total power.

And all that horsepower helped the railroads reach a record 900,000,000,000 revenue-ton-miles last year.

But to do it, it cost over $1 billion just for the new locomotives required.

And that's only the front end of the train!

Last year, railroads, users, and investors added nearly 90,000 new freight cars to the nation's fleet, at a cost of more than $3,500,000,000. Pullman Standard alone built 22,033 of these new cars.

Seldom have so many companies joined efforts to aid a particular industry. And seldom has an industry succeeded so well in transforming itself to meet changing needs.

In particular, the railroads themselves last year invested $3,167,000,000 in capital funds on new locomotives, freight cars, *and* improvements on tracks, terminals, and other facilities.

Additionally, they spent another $8.5 billion on maintaining their rail equipment and vast rail network.

roads have going
nerica?

00 horsepower.

And, the railroads continued their great effort in the expansion of one of the world's largest and most sophisticated computer-based information systems.

All told, the railroads spent over $11,667,000,000 streamlining their systems just last year.

And that's not counting nearly $11.5 billion in wages paid to 505,000 railroad workers.

Nor the almost $3 billion spent on fuel.

Because of these kinds of expenditure, these kinds of investment, the nation's goods and raw materials were transported over a modern and efficient rail network at a cost averaging just 2.7¢ a ton-mile. That means moving one ton, one mile, for just under 3 pennies.

What do the railroads have going for America?

Obviously a total commitment to America's transportation needs!

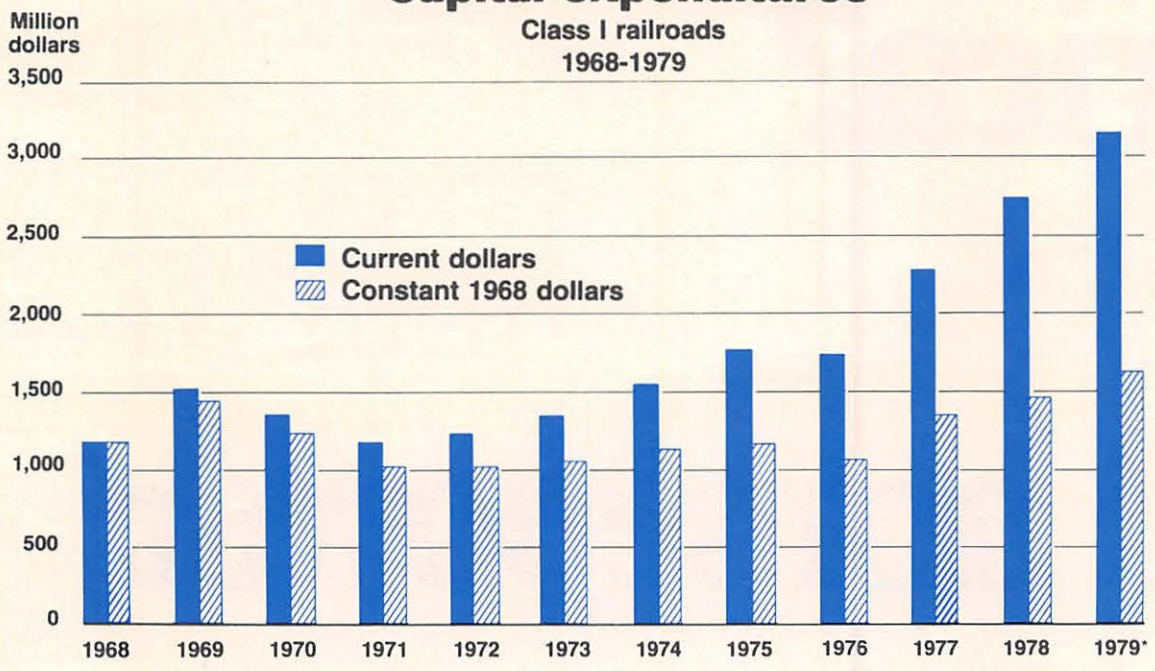
Pullman Standard
Division of Pullman Incorporated
200 South Michigan Avenue
Chicago, Illinois 60604

Circle 25 on Reader Service Card

Improvements

Capital expenditures

Class I railroads
1968-1979



*12 months ended Sept. 30

Capital expenditures and retained funds 1968-1979

Year	Gross capital expenditures: Rolling stock (millions)	Gross capital expenditures: Other facilities (millions)	Gross capital expenditures: Total (millions)	Retained funds* (millions)	Excess of capital expenditures over retained funds (millions)
1968	$ 819	$368	$1,187	$ 829	$ 358
1969	1,089	421	1,509	816	694
1970	993	358	1,351	618	733
1971	864	314	1,178	784	394
1972	848	368	1,216	923	293
1973	893	449	1,342	964	378
1974	1,038	527	1,565	1,091	475
1975	1,303	486	1,790	622	1,168
1976	1,175	550	1,725	683	1,042
1977	1,540	751	2,291	763	1,527
1978	1,883	855	2,738	727	2,011
1979	2,160	1,007	3,167	1,221	1,946

*Retained funds represent income before extraordinary items, plus deferred taxes and depreciation and retirement charges, less cash dividends and equity in undistributed earnings and affiliated companies.

Note: Capital expenditures of Class I railroads do not include expenditures for railroad equipment made by private car companies and lessors, in 1979 private spending was expected to exceed $1 billion.

Railroad cost of capital

	1978 Ex Parte No. 353	1979 current
1. Embedded cost of debt	7.0%	7.25%
2. Current cost of debt	8.4	9.0
3. Current cost of equity	14.0	14.5
4. Opportunity cost of book equity	16.2	16.2
5. Cost of capital as measured by rate of return on net investment base	12.5	12.6

New and rebuilt equipment installed 1968-1979

Year	Freight cars	Passenger-train cars	Diesel-electric units
1968	68,568	103	982
1969	75,661	265	1,241
1970	75,136	318	1,093
1971	60,633	281	1,276
1972	49,983	347	1,577
1973	59,170	92	1,339
1974	67,409	100	1,282
1975	73,992	272	810
1976	53,630	358	568
1977	53,817	158	996
1978	70,458	44	1,378
1979 est	90,000	n.a.	1,900

n.a. Not available

Note: Freight-car installations include cars of all railroads and private car lines. Passenger-train car and diesel-electric unit installations include Amtrak and Auto-Train beginning in 1972.

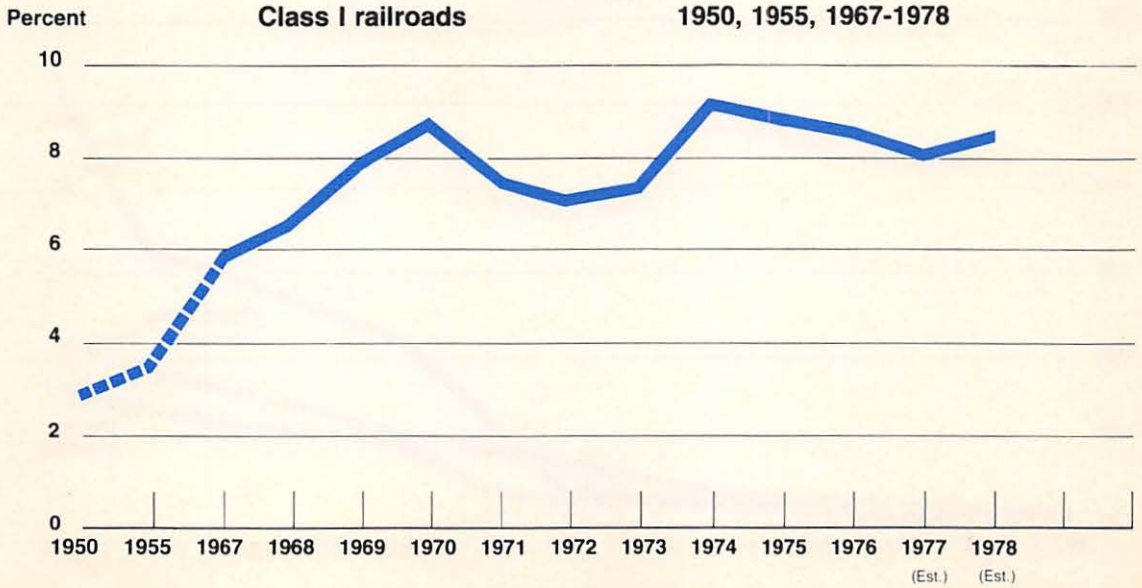
Inventory of equipment 1968-1979

December 31	Freight cars*	Passenger cars (incl. Pullman)	Head-end passenger-train cars	Diesel locomotive units	Other locomotive units
1968	1,800,375	8,601	6,583	27,017	359
1969	1,791,736	8,343	4,083	26,174	319
1970	1,784,181	7,953	3,224	26,796	290
1971	1,762,135	6,804	1,909	26,897	292
1972	1,716,937	6,541	1,048	27,070	294
1973	1,710,659	6,270	919	27,550	250
1974	1,720,573	6,077	771	27,857	227
1975	1,723,605	5,834	637	27,846	225
1976	1,699,027	4,879	599	27,368	229
1977	1,666,533	4,907	605	27,450	217
1978	1,652,774	3,566	760	27,241	216
1979 est.	1,694,000	n.a.	n.a.	27,700	216

*All cars, railroad and private.
n.a. Not available.

Note: Figures shown for passenger equipment include National Railroad Passenger Corp. (Amtrak) beginning with 1971. Number of locomotives shown includes Amtrak beginning with 1972 and Auto-Train Corp. for years 1972-77. Beginning with the year 1972, the number of freight cars is based on a revised series. (TRAIN).

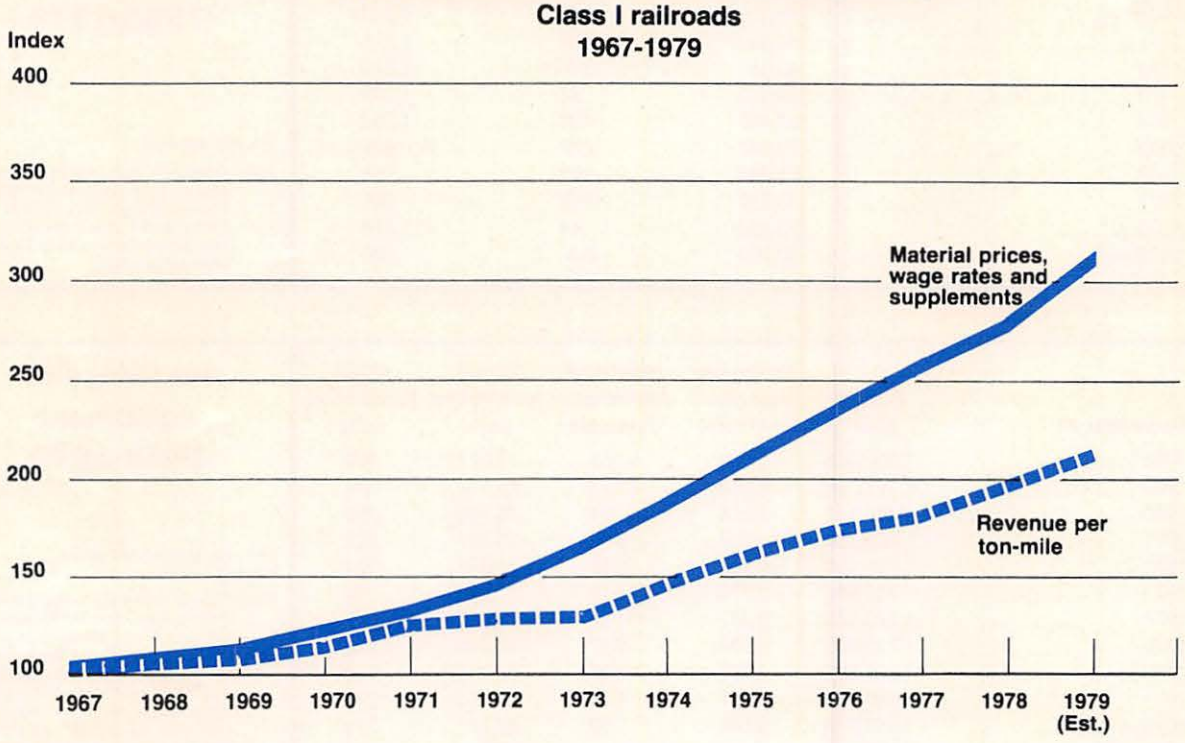
Average interest rates on equipment obligations issued



Costs

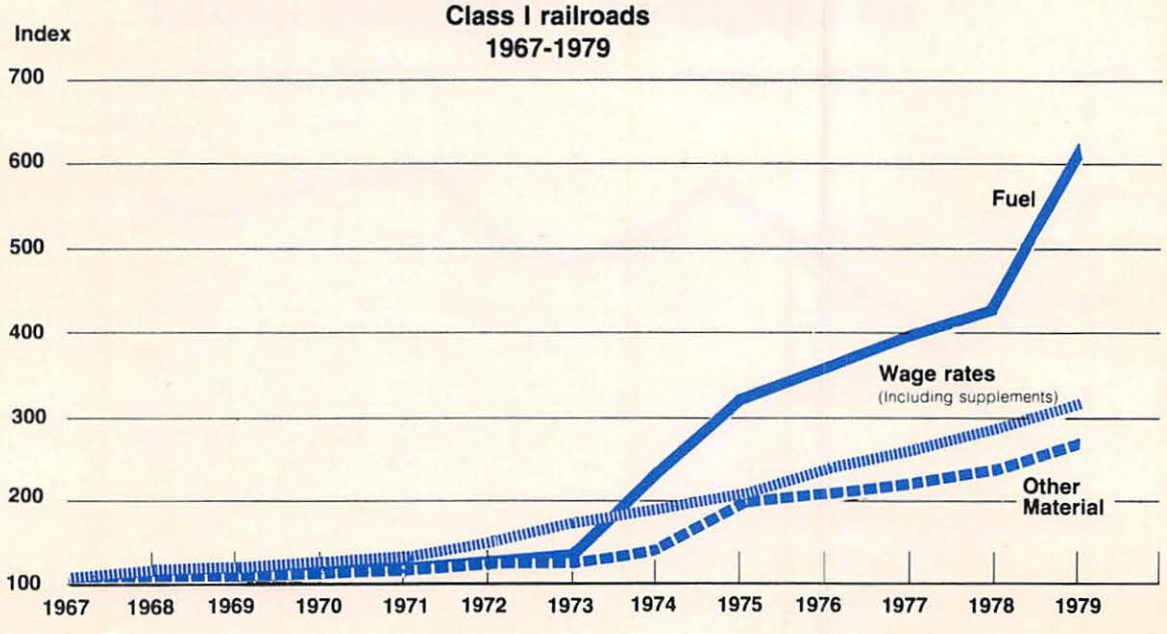
Revenue and cost trends

Class I railroads
1967-1979



Railroad cost trends

Class I railroads
1967-1979



Prices and revenue averages—1967-1979

Year	Consumer price index (1967 = 100)	Producer price index for railroad equipment (1967 = 100)	Revenue per ton-mile (cents)	Revenue per passenger-mile (cents)
1967	100.0	100.0	1.269	3.195
1968	104.2	103.1	1.310	3.389
1969	109.8	108.8	1.347	3.608
1970	116.3	115.1	1.428	3.914
1971	121.3	121.1	1.593	4.306
1972	125.3	128.7	1.618	4.747
1973	133.1	134.7	1.617	4.756
1974	147.7	163.8	1.853	5.207
1975	161.2	201.2	2.041	5.396
1976	170.5	216.7	2.191	5.744
1977	181.5	233.5	2.286	5.916
1978	195.3	252.7	2.462	5.968
1979 est.	217.5	276.5	2.700	6.050

Note: Revenue per passenger-mile figures include Amtrak statistics beginning with 1971 and include Auto-Train for years 1972-77.

Trend in railroad fuel prices[a]

(cents per gallon)

Year	U.S.	East	South	West
1968	9.29	9.59	10.42	8.81
1969	9.58	9.84	10.44	9.23
1970	9.92	10.13	10.62	9.68
1971	10.29	10.70	10.98	9.92
1972	10.52	10.92	11.27	10.14
1973	12.26	12.74	12.94	11.84
1974	24.43	25.19	25.06	24.01
1975	28.91	30.05	29.75	28.09
1976	31.44	32.55	32.31	30.67
1977	34.99	36.81	36.18	33.77
1978	36.54	38.48	37.50	35.36
1979	72.68	72.18	70.05	73.69

[a] Yearly averages based on AAR Fuel Index. December 3, 1979 prices based on Ex Parte No. 311 questionnaire responses from all Class I railroads.

Annual rates of inflation 1978-1979

(1967 = 100)

Month	Producer price index	Consumer price index	Index of railroad material prices and fuel
1978			
April	206.4	191.4	279.5
May	207.9	193.3	—
June	209.4	195.3	—
July	210.6	196.7	281.5
August	210.4	197.7	—
September	212.3	199.1	—
October	214.9	200.7	286.8
November	215.7	201.8	—
December	217.4	202.9	—
1979			
January	220.8	204.7	296.3
February	224.1	207.1	—
March	226.7	209.3	—
April	230.0	211.8	316.9
May	232.0	214.3	—
June	233.5	216.9	—
July	236.6	219.4	367.3
August	238.1	221.5	—
September	241.7	223.7	—
October	245.2	225.6	404.7
Annualized rate of inflation 10/78-10/79	14.1%	12.4%	41.1%

Compensation

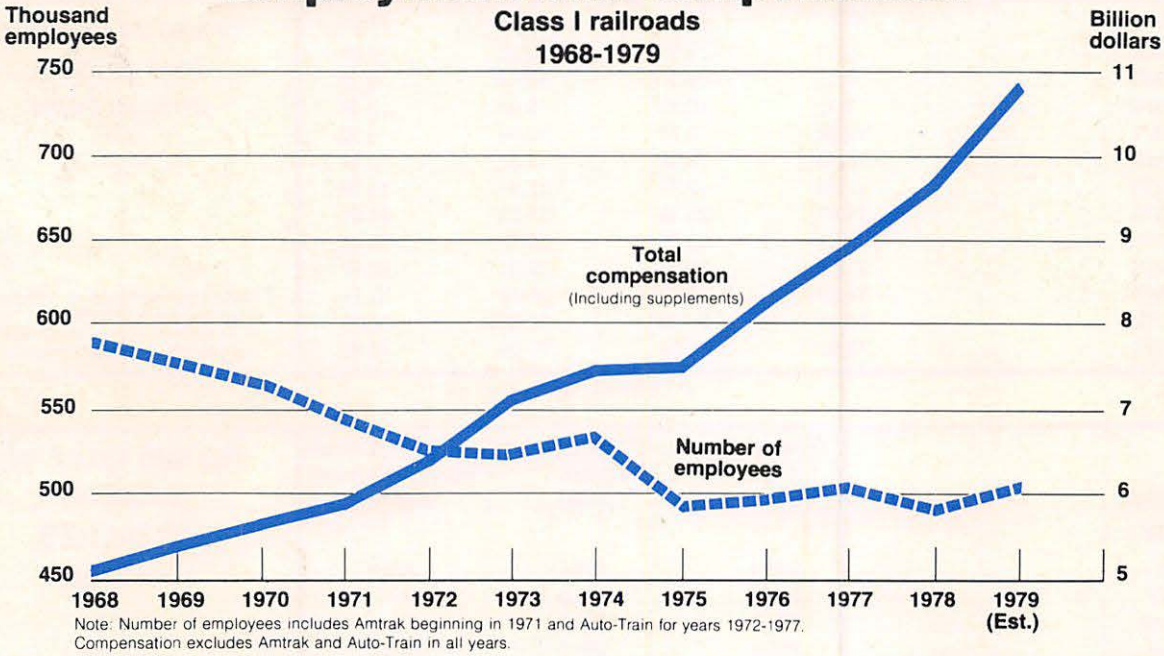
Index of wage rates and material prices 1967-1979

(Average 1967 = 100)

Year	Wage index	Wage sales and supplements	Fuel	Price index other material	Total material	Index of wage rates and prices	Wage rates and prices including supplements
1967.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968.....	105.1	106.3	103.5	102.6	102.7	104.7	105.7
1969.....	112.2	113.6	106.7	105.5	105.8	110.9	112.3
1970.....	122.7*	125.6*	110.5	109.4	109.7	120.2*	123.0*
1971.....	136.8*	139.4*	114.6	113.5	113.7	131.2*	133.7*
1972.....	149.5	153.4	117.1	118.7	118.1	141.8	145.6
1973.....	164.4	173.9	136.5	122.9	126.7	155.2	163.5
1974.....	173.4	189.1	272.0	142.1	178.9	174.7	186.8
1975.....	190.8*	207.1*	321.9	190.2	227.2	202.2*	212.6*
1976.....	210.7	232.0	350.1	203.2	244.5	221.3	235.4
1977.....	227.3	251.6	389.6	217.2	265.3	239.2	255.4
1978.....	250.0	276.5	406.9	230.6	279.9	259.4	277.4
1979 (prel).	275.1	302.8	606.7	252.5	348.0	297.9	315.2

*Reflects inclusion of retroactive wage increases.

Employment and compensation



Note: Number of employees includes Amtrak beginning in 1971 and Auto-Train for years 1972-1977. Compensation excludes Amtrak and Auto-Train in all years.

Employees and their compensation 1968-1979

Year	Number of employees 1	Number of employees 2	Total payroll (1000s)2	Average annual earnings per employee1	Average straight-time Hourly rate2	Hourly earnings2
1968	—	590,536	$5,110,636	$ 8,654	$3.47	$3.74
1969	—	578,227	5,362,754	9,274	3.70	4.00
1970	—	566,282	5,711,280*	10,086*	4.05*	4.35*
1971	544,497	544,333	5,999,968*	11,023*	4.52*	4.84*
1972	527,235	526,061	6,424,920	12,213	4.94	5.32
1973	524,422	520,153	7,083,338	13,627	5.43	5.83
1974	533,277	525,177	7,475,834	14,235	5.72	6.16
1975	494,348	487,769	7,474,000*	15,324*	6.30*	6.77*
1976	496,491	482,882	8,278,400	17,144	6.96	7.49
1977	501,389	482,731	8,939,400	18,518	7.51	8.15
1978	491,254	471,519	9,700,600	20,573	8.25	8.85
1979 est....	505,300	485,600	10,975,000	22,600	9.08	9.76

* Adjusted to include retroactive increases.

1 Includes Amtrak beginning in 1971 and Auto-Train for years 1972-77.

2 Excludes Amtrak and Auto-Train.